

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A gas sensor comprising a chamber arranged to admit gas, ~~one or more~~ a radiation source[[s]], a plurality of detectors sensitive to radiation from the ~~one or more radiation source~~[[s]], and a plurality of respective reflective curved surfaces, the detectors being arranged around the radiation source and each detector being arranged to receive radiation from the one or more radiation source[[s]] reflected by the respective curved surfaces of curvature such that light radiation from the one or more radiation source[[s]] is focussed onto each detector, the radiation source and plurality of detectors being arranged within the chamber.
2. (Currently Amended) A gas sensor as claimed in claim 1, wherein ~~[[one]]~~the source is located substantially at a first focus of each respective reflective curved surface.
3. (Original) A gas sensor as claimed in claim 1, wherein each detector is located substantially at a second focus of each respective reflective curved surface.
4. (Currently Amended) A gas sensor as claimed in claim 1, wherein the reflective curved surfaces are part ellipsoidal surfaces.
5. (Currently Amended) A gas sensor as claimed in claim 1, further comprising a central region between the detectors, there being one source ~~[[being]]~~ located in the central region.
6. (Previously Presented) A gas sensor as claimed in claim 4, wherein one of the detectors is at a focus of a first part ellipsoidal surface, a second detector is at a focus of a second part ellipsoidal surface and the first and second ellipsoids share a common virtual focus.
7. (Currently Amended) A gas sensor as claimed in claim 6, wherein the first ~~sensor~~ detector is arranged to detect a first predetermined gas and the second ~~sensor~~ detector is arranged to detect a second predetermined gas.

8. (Previously Presented) A gas sensor as claimed in claim 1, further comprising a reference detector.
9. (Currently Amended) A gas sensor as claimed in claim 1, wherein ~~[[one of]] the one or more~~ radiation source~~[[s]]~~ is an infrared source.
10. (Currently Amended) A gas sensor as claimed in claim 1, wherein the source is arranged to heat substantially all the surfaces from which ~~[[light]]~~radiation is reflected to a temperature above ambient temperature.
11. (Cancelled)
12. (Currently Amended) A gas sensor as claimed in claim ~~[[11]]~~5, further comprising a further reflective surface so arranged that ~~[[light]]~~radiation from the one radiation source is reflected by the further reflective surface onto each respective reflective curved surface and then to each respective detector.
13. (Original) A gas sensor as claimed in claim 12, wherein the further reflective surface comprises an annular reflective surface.
14. (Previously Presented) A gas sensor as claimed in claim 1, wherein each detector is arranged to receive radiation from a narrow solid angle.
15. (Cancelled)
16. (Original) A gas sensor as claimed in claim 5, wherein the one source is generally omnidirectional.